GEOGRAPHIC NEWS BULLETINS

Published Weekly by

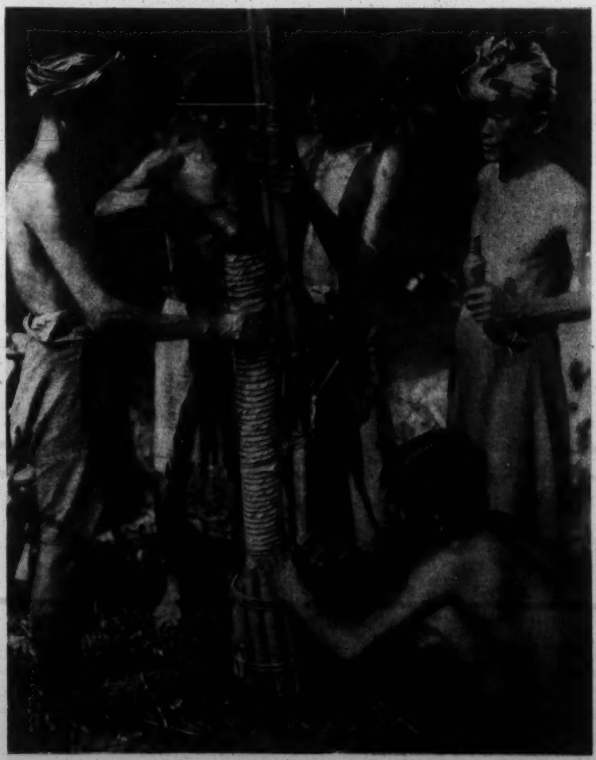
THE NATIONAL GEOGRAPHIC SOCIETY

(The National Geographic Society is a scientific and educational Society, wholly altruistic, incorporated under the Federal law as a non-commercial institution for the increase of geographic knowledge and its popular diffusion.)

General Headquarters, Washington, D. C.

Contents for Week of March 10, 1930. Vol. IX. No. 3

1. The Orinoco River, Which a Natural Canal Links to the Amazon.
2. Salzburg Draws Drama Lovers.
3. Some Curious Ways the World Prays.
4. Madras, Where Cotton Once Was King.
5. Deeper Harbor Urged for Hull, Port of the Fishing Fleet.



© *National Geographic Society*

THE SIAMESE SHOOT SKYROCKETS AS PRAYERS AGAINST EVIL SPIRITS

(See Bulletin No. 3)

HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic News Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers for one year upon receipt of 25 cents (in stamps or money order). Entered as second-class matter, January 27, 1922, at the Post Office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized February 9, 1922.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

The Orinoco River, Which a Natural Canal Links to the Amazon

WHEN a Venezuela boundary-marking delegation recently traveled up the headwaters of the Orinoco River to meet a Brazilian boundary commission, Dr. Ernest G. Holt, explorer for the National Geographic Society, obtained permission for himself and his wife to accompany them.

While the commissions smooth out boundary questions between the two nations, Dr. Holt will turn his attention to rare specimens of jungle life. He has been in Venezuela for some time studying especially the habits of birds which frequent the United States in the summer time but migrate to Venezuela during the winter.

The Orinoco River offers a good road to travelers. This is because the river is bordered on one side for long distances by extensive level prairies instead of by impenetrable forests such as those through which the Amazon flows.

One of the Six Greatest Rivers of the World

Just as large herds of bison roamed our prairies, so vast droves of half-wild cattle covered the level llanos north of the Orinoco in Venezuela's colonial days. These cattle played an important part in making independence possible in Spanish-speaking South America; for the armies of liberation and their guerrilla forces lived on their meat. These inroads almost exterminated the herds, however, and it is only in recent years that the cattle industry has shown indications of regaining its former importance.

If it were not neighbor to the Amazon, mightiest river of the earth, the Orinoco would stand out as a tremendous stream; for, judged by the total volume of water which it yearly empties into the sea, it is probably one of the half-dozen greatest rivers of the world. In length the Orinoco cannot compete with other great streams; the distance from its source to its mouth is about 1,600 miles. It has many huge tributaries, however, which give it a high rank in length of navigable waters, about 4,500 miles.

The river finds its way into the Atlantic through a huge delta covering some 7,000 square miles. The first introduction which the river navigator gets to the Orinoco leads him to class it as a second Amazon, for on its low, moist delta forests run riot. One sails between the massive green walls formed by rank-growing strands of thousands of vines climbing over lofty trees.

Natural Canal Connects Amazon and Orinoco

Above the delta, however, a hundred or more miles inland the screening effect of coastal mountains comes into play, and the plains or llanos begin. Even in the prairie region trees fringe the river banks, but back from the stream, where the dry seasons make themselves felt, only little clumps of stunted palms and bushes break the monotony of the grass-covered plains. South of the river are vast forests like those of the Amazon basin, and from these tree-covered regions flow numerous large tributaries, some of which are little known.

Ocean ships sail up the Orinoco as they sail up the Amazon, though not so far. Ciudad Bolivar, 260 miles from the ocean, is the New Orleans of Venezuela and is the country's fourth port. Here the river is 10 or 12 miles wide even in the dry season and spreads out amazingly when the floods, 40 to 50 feet deep, sweep

UMI

© *Photo from D. W. Iddings*

THE CITADEL ON A MINIATURE MOUNTAIN DOMINATES SALZBURG

The famous traveler Humboldt called Salzburg one of the three most beautiful cities in the world. The citadel dates from the ninth century. In recent years the town has earned a world reputation for its annual dramatic festival (See Bulletin No. 2).

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Salzburg Draws Drama Lovers

MANY visitors to Europe next summer who are particularly interested in the theater will probably find their way to Salzburg, Austria, where an annual dramatic festival will be held.

Salzburg lies on both banks of the Salzach River, about 190 miles southwest of Wien (Vienna). The town needs no Washington Monument or Woolworth Tower, for Nature has endowed it with two natural observation points from which visitors may view the town and its environs.

Many narrow streets of the old Salzburg on the south bank of the Salzach stop abruptly at the foot of the Monchsberg, a small mountain rising several hundred feet above the housetops. On the opposite side of the river, above the modern portion of the town, Kapuzinerberg, 500 feet higher than the Monchsberg, offers another splendid panorama in the opposite direction.

Known as Austria's German Rome

For several miles above and below Salzburg the Salzach gracefully winds through the fertile valley farmland. Within the city the river flows between shaded promenades and boulevards.

"Old" town is a misnomer for the portion of Salzburg on the south bank of the Salzach because it is old only by comparison with the very modern town across the river. Although the important Roman commercial city, Juvavum, was situated on the Salzburg site, it was completely destroyed in the fifth century. Fires and enemy raids reduced several succeeding towns to ruins. As a result there are few historic relics in the town to-day that date back more than four or five centuries.

Salzburg has numerous churches, but the massive bulk of the cathedral with its huge dome dominates the town. It is a copy of St. Peter's at Rome. The fact that the cathedral and many of the other edifices are of Italian architecture, and that the population is predominantly German, is responsible for its title, "Austria's German Rome."

American Tourists Often Buy Homemade Lace

Parks form open spaces in modern Salzburg which make a beautiful approach from the railroad station on the northwest side of town. Through tree-lined boulevards the taxis and tram-cars pass the Staadtpark, a large public park adjoining the Mirabell Castle, formerly the residence of the Archbishop. The castle, surrounded by well-kept lawns, terraces, hedges and numerous marble statues, is one of the show-places of Salzburg.

For breathing spaces, the old town has several public squares from which the narrow streets radiate. One of them is used as a market-place where on Thursdays the picturesque rural folk mingle with the townspeople amid a gorgeous array of flowers, fruits, vegetables and fish piled high on stands. Homemade lace of fine workmanship purchased in the Salzburg market is often included in the baggage of American travelers.

The Residenz-Platz, on one side of the cathedral, is the hub of the town and a popular meeting place for natives; but Americans, and particularly music-loving

down. Smaller boats ascend the river hundreds of miles above Ciudad Bolivar, almost to the Andes, in fact. The traffic on the river is not nearly so heavy as the excellent navigation facilities warrant, owing to the sparseness of the population. Canoes and rafts, floating down from remote regions of the Upper Orinoco basin, bring considerable quantities of rubber, balata gum, chicle, and hides to Ciudad Bolivar. From there the forest products are shipped to the outside world, largely by way of the British island of Trinidad just off the Orinoco delta.

Physiography has played a queer trick on the Orinoco in the upper reaches of the river. A stream flows out of the river at one point, carrying part of its waters to the Amazon. This stream, called the Casiquiare canal, is navigable by small boats, so the boundary commissioners and Dr. and Mrs. Holt were able to go inland by water from the lower Orinoco to the Amazon.

Bulletin No. 1, March 10, 1930.

© *Photograph by George M. Dyott*

THE PECCARY IS A CURIOUS NATIVE OF VENEZUELAN GRASS PLAINS

When Colonel Lindbergh flew over Colombia and Venezuela, he saw what he thought to be herds of pigs which proved to be peccaries, New World relatives of the swine. They are found throughout Mexico, Central and South America, and as far south as Patagonia.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Some Curious Ways the World Prays

OCCASIONAL revision of the prayer books of Western churches is a reminder of curious prayer customs that prevail in certain other parts of the world.

Central Asia and Tibet have been called the "Land of Mechanical Prayers." Wherever the natives congregate, there is a constant muttering "Om mani padme hum" (O Jewel in the Lotus), while numerous contrivances bearing the same prayer are in use, adding mechanical repetitions to the vocal pleas.

The praying wheel has long been a favorite apparatus among Buddhists of these regions. In the villages and along the highways, the faithful carry the hand model of the wheel consisting of a revolving cylinder on a shaft. As the holder walks or rides he spins the cylinder, upon which the prayer is written, hundreds of times. Each revolution of each prayer is an individual prayer. In this way thousands of prayers can be said in a minute.

River Harnessed to Prayer Wheel

Sometimes the owner of a plot of ground where there is a stream will set up a water-propelled prayer wheel. The pole to which the prayer wheel or cylinder is attached is stuck through a hole in a board which rests on the banks. Then a sort of mill wheel is attached to the bottom of the pole so that the water of the stream revolves the pole and cylinder, constantly whirling out prayers. Often the traveler sees beside a stream a public wheel or two which resembles, at first glance, a small rural grain mill of this country.

In the land of the Nashi near the Tibetan border the natives in bright red cloaks journey to their sacred places, pounding drums and ringing bells. The difficult trails are lined here and there with prayer pyramids, which are piles of rocks of various heights.

Prayer flags also play an important part in the religious life of the Nashi people. Nearly every village has a prayer flagpole which is seldom without a fluttering piece of cloth or hide. Each flag bears at least one prayer and each flutter is equivalent to a word of mouth petition of the villagers. The devout Buddhist often ties hundreds of these flags to a rope which he strings across an open space where the wind will strike them and shower merit upon him.

The Formula of a Moslem Prayer

The Moslems are more conservative than their Buddhist neighbors. Prayer rugs, some of which are beautifully designed and colored, are important prayer accessories. Wherever the Moslem may be, in the shop or in the street, at prayer time he spreads out his carpet, removes his shoes and, facing Mecca, goes through the formula of Moslem prayer postures. First he holds both hands before his face with palms upward, then, bending at the hips, he places his hands on his thighs. His next move is to kneel without moving his hands and from this kneeling posture he leans forward, touching the palms of his hands and his forehead to the ground.

Some sects of the Moslems use prayer bricks. They are cakes of baked clay from Mecca, Medina or some other sacred place. They are placed so that the head of the praying Moslem will touch them instead of the ground. If he loses his

Americans, display more interest in the adjoining square, Mozart-Platz. In the center is a statue of Mozart. Two blocks away the house in which he was born contains a collection of souvenirs, portraits, manuscripts, and his piano. The house in which Mozart wrote "The Magic Flute" also stands amid beautiful natural surroundings on the summit of Kapuzinerberg. It was moved from Vienna in 1874.

Salzburg also was the home town of Josef Mohr, who wrote the popular Christmas hymn, "Silent Night, Holy Night."

© Photo by Emil P. Albrecht

STEPS LEAD UPWARD TO THE KAPUZINER CONVENT

This narrow stairway leads to the top of Kapuzinerberg, one of the small mountains that dominate Salzburg. The ascending visitor reaches the buildings shown in the illustration facing Bulletin No. 1.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Madras, Where Cotton Once Was King

INDIA'S fate seems to be wrapped up in cloth; particularly cotton cloth.

For many years India was the world's chief producer of cotton cloth, the price of which was then more nearly equal to that of wool and silk. Then came the development of the power loom, the cotton-gin and automatic spinning.

India's cotton trade went into a slump. England began selling cotton to India. In fact, India's chief import to-day is cotton cloth from England. So vital is this trade that natives opposing English rule in India have encouraged Indians to spin and weave their own cotton cloth and to develop cotton mills in India.

Cloth That Merchants Bought in Port They Called Madras

One of the centers of the old Indian cotton trade was Madras. It is an old city in Anglo-Indian history. Madras was the first large settlement made by the old East India Company, which was given a charter by Queen Elizabeth. The cloth which the merchants of the company obtained from the natives was called madras. They also traded for percalla, which we know as percale.

Elihu Yale of Boston, Massachusetts, for whom Yale University in the United States was named, was one of the early governors. Madras city is capital of the Madras Presidency and contains the governmental buildings. Many of these are of rare beauty, but they are spread out over the community in such a way that their effectiveness in beautifying the port is lost.

With its highest point but 22 feet above the sea, Madras is one of the world's flattest cities. It lies on the Bay of Bengal on the southeast coast of India. The site of the city and the surrounding countryside are so flat that travelers on ships entering the harbor cannot see farther than the first row of the city's buildings.

Colorful Gardens in Front of Shops

The harbor of Madras is too shallow for seagoing vessels to get near shore. Passengers and cargo are transported ashore in *masula* boats, made of long planks bound together by coconut fiber, or on catamaran rafts. The rise and fall of the tide off this part of the coast is small, ranging between three and four feet daily.

The city lies sprawled out along the coast, being divided by estuaries and two sluggish rivers, the Cooum and the Adyar. Its wide avenues are shaded by tall palms and banyan trees, some of which are so large they arch across the streets. It is these trees which make the Marina, Madras' famous sea front promenade, agreeable for strolling even on the hottest days.

The houses of the more prosperous citizens are set in compounds which look like parks. Sometimes rice fields divide these compounds and give the landscape the aspect of a country village spread out over a large area. Cannas and other flowers bloom riotously in the gardens, making vivid spots of color against the tropical greenness. Many of the principal shops are fronted with gardens. Everything in Madras is on a wide scale. Even in the native quarters of Triplicane and George Town, the houses are not built so closely as in other Indian cities.

Numerous parks intensify the impression of space in the city. In the 116 acres which form the People's Park are eleven artificial lakes, an athletic ground,

prayer bricks, a piece of green paper or leaves of any plant that does not grow fruit will answer the purpose.

When Kei islanders go off to war, the women of the tribe place baskets of stone and fruit on a board while they pray that the bullets of the enemies will rebound from their husbands and brothers as rain drops would rebound from their offerings if the latter were smeared with oil. Natives of the Celebes kill a rooster and a pig and, placing them side by side, pray "O gods above and gods below, if you have pity on us and will that we eat, give us rain." In Malaya the rice growers must take a pint of rice to the mosque when prayers are to be said for the success of the rice crop.

Some of the Nebraska Indians used prayer pipes. Instead of repeating the Indian prayer, the tribesmen sought a quiet place where they smoked their prayer pipes which accorded them equal merit to spoken words. Some tribes would put soft clay on their faces before seeking a place to pray.

Bulletin No. 3, March 10, 1930.

© *National Geographic Society*

THIS GIGANTIC BUDDHIST PRAYER WHEEL IS HOUSED IN A SEPARATE BUILDING

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Deeper Harbor Urged for Hull, Port of the Fishing Fleet

HULL is one of five English ports where harbors have been listed as needing immediate improvement. It is proposed to deepen Hull Harbor in order to encourage larger ships to come to its quays.

This thriving North Sea port has a special interest to Americans because of its connection with early Pilgrim fathers. From a creek opposite the city of Hull, near the mouth of the River Humber, leaders of the Pilgrims sailed for Holland. They later founded the town of Hull in Massachusetts.

The English port of Hull is in east Yorkshire and has more than a quarter of a million people. It is port of departure for travelers from England to Norway and Sweden. Tourist traffic is especially heavy in summer when holiday makers seek "the Land of the Midnight Sun." Returning steamers bring heavy cargoes of Norwegian lumber and Swedish ore. Grain from Russia and the United States, and butter from Holland and Denmark, are imported for the dense populations crowded in near-by manufacturing towns.

Trawlers Were Mine Sweepers During World War

Ships sail for the continent loaded with coal from Yorkshire's mines, and cotton goods, seed oil, iron-ware and chemicals from her factories. Like Aberdeen in Scotland, Hull is a home port of a North Sea fishing fleet, whose trawlers performed signal service as mine sweepers during the World War.

From the time of the landing of Englishmen on New World soil to the time of America's Civil War, Hull was a port of the British whaling industry, and it sent out the first steam-whaler. When petroleum supplanted whale oil for lighting, however, the fleet could not pay profits and its picturesque vessels have practically vanished from the seas.

Hull is the only port of the British Isles deliberately founded by the King as a shipping center. Edward I was attracted by the favorable location of the medieval village of Wyke, at the junction of the River Hull with the Humber, about 22 miles from open sea. He granted the citizens a charter and changed the name of the new port to Kingston-upon-Hull, which is still the official designation of the city. Edward offered inducements to settlers and later monarchs granted further charters and permits to hold fairs. In later centuries burghers of Hull do not appear to have basked so largely in royal favor. Refusal of the city to admit Charles I within its gates is considered one of the opening acts of the English Civil War.

Home Town of Fighter against Slavery in British Colonies

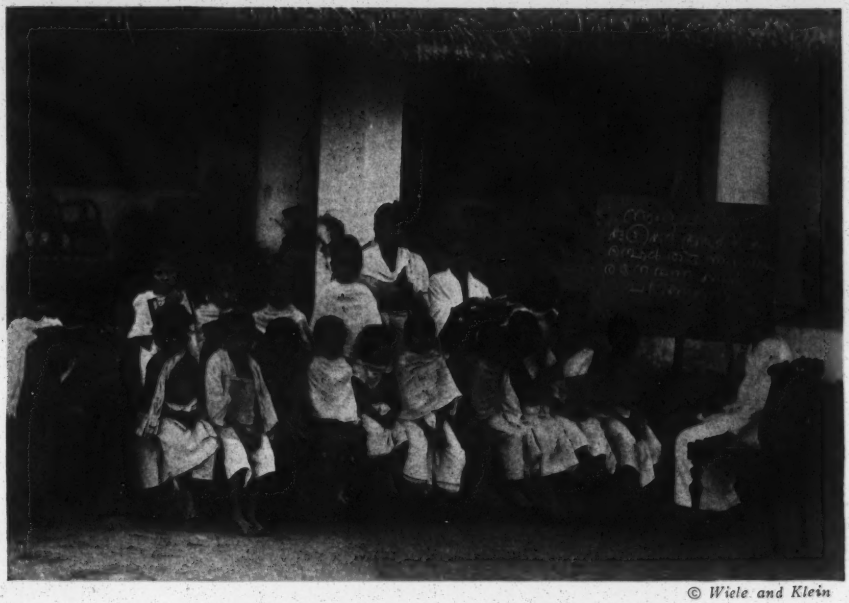
Andrew Marvell, secretary to Oliver Cromwell, and colleague of the poet Milton, was one of Hull's distinguished Puritan sons. In later years another native of the Yorkshire port, William Wilberforce, led the movement for abolition of slavery in British colonies. Wilberforce Monument is one of the striking features of the modern city.

The older portion of Hull is an island formed by rivers on two sides and docks on the others. In this congested district are narrow streets and a few quaint houses dating from the city's remote past. Here is Holy Trinity Church, one

a large zoo, numerous excellent tennis courts and a bandstand. Rare trees, shrubs and plants beautify the 22 acres of the Horticultural Gardens.

A visitor to Madras gets the impression that the Madrasi, both native and Anglo-Indian, are ardent exponents of higher education. There is a State university, many professional and art colleges; and the Madras Christian College, with its numerous buildings, is one of the largest colleges in India. Pacheappa College was founded about a hundred years ago when higher education was unknown in Madras. Its founder was a far-seeing and benevolent Hindu. Madras has a Y. M. C. A. housed in a large red sandstone building, presented to the city by a famous American philanthropist.

About a tenth of Madras' half million population is Christian. Hindus form the largest part with Mohammedans second, but the Christian aggregation is almost as large as the Mohammedan. The Roman Catholic Cathedral of St. Thome was founded by the Portuguese in 1504. The earthly remains of St. Thomas are supposed to lie beneath its floors.



© *Wiele and Klein*

AN OUTDOOR CLASS OF SCHOOL CHILDREN IN INDIA

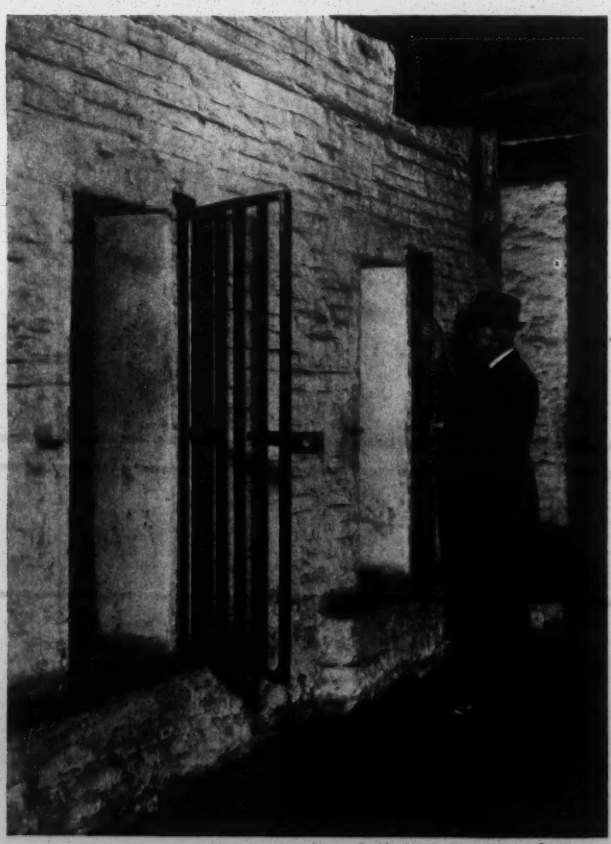
In spite of the caste system by which the people of India divide themselves into sharply marked classes, and in spite of many dialects, splendid progress has been made in the field of education in recent years. Cotton-cloth of the dresses these children wear probably came from England.

of the largest parish churches in England. In its huge central tower are bricks brought over from the Low Countries, marking the beginning of the use of brick in church architecture. Some fine stained glass was destroyed by an air raid in 1918. Near-by are the quaint buildings of the Grammar School, erected toward the end of the sixteenth century, where the Puritan Marvell was educated.

Museum of Slavery and Whale Fishery

Outside the island broad avenues lead in all directions. Modern Hull has fine houses, parks, and public buildings. An interesting museum houses collections relating to the African slave trade and the Greenland whale fishery, two phases of past activity with which the history of Hull is inseparably connected through her abolitionist hero and her vanished whaling fleet. Now a university is to be founded to carry forward the educational ideals of the modern city.

Bulletin No. 5, March 10, 1930.



© *National Geographic Society*

WHERE PILGRIM FATHERS WERE IMPRISONED AT BOSTON, ENGLAND

These cells in the basement of the Guildhall, Boston, are reputed to be those in which some members of the Pilgrim Church were confined in 1607. Tradition asserts that a friendly mayor connived to let them escape to Holland.